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SENSITIVE SIPDIS

USDOE FOR INTERNATIONAL
USNRC FOR SKIP YOUNG, CHARLOTTE ABRAMS
COMMERCE FOR JAMIE ESTRADA
STATE FOR FRANK MERMOUD

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TAGS: ENRG TRGY IAEA UK
SUBJECT: U.S. FIRMS WELCOME ENHANCED USG SUPPORT OF UK
NUCLEAR RENAISSANCE

- 11. (U) Summary: State Special Representative for Commercial Affairs Frank Mermoud and Commerce DAS Jamie Estrada visited the UK July 17-18 to discuss upcoming events in the UK,s nuclear industry. HMG is aggressively moving forward with plans for new nuclear power plants. Government contacts pointed to progress made on all necessary legislative fronts, including planning, regulation and waste management. However, both public and private sector meetings revealed uncertainty regarding the ability of the regulator, the Nuclear Inspections Inspectorate (NII), to perform the licensing of new reactor designs and perform regulatory oversight, given a lack of funds and qualified staff. Although both public and private sector seem enthusiastic about the market, twenty years of underinvestment in the sector has left it short of skills, which could constrain growth. U.S. firms operating in the civilian nuclear sector welcome more public USG support for the UK,s nuclear renaissance. End Summary.
- ¶2. (U) On July 17-18 State,s Special Representative for Commercial Affairs Frank Mermoud and Department of Commerce Deputy Assistant Secretary for Manufacturing Jamie Estrada met with government officials and representatives from American companies that are active in the civilian nuclear sector in the UK. The purpose of the visit was to discuss new developments in the sector and to gauge interest in a potential business development mission this fall to highlight high-level USG support for the UK,s nuclear renaissance.

Government Support from BERR, Downing St.

¶3. (U) Mark Higson, Head of the Nuclear Unit at the Department for Business, Enterprise and Regulatory Reform (BERR), outlined the new Office of Nuclear Development to be formed within (BERR) to specifically focus on new nuclear reactors. He stated that BERR would like to see more than one new reactor design so that the new industry is not overly reliant on a single reactor model. Higson, stressed that the UK remains an open economy, and is serious about inward investment and new nuclear reactors. However, he added that BERR would like to see as much local sourcing as possible, the enhancement of local supply chains, and local wealth creation along with any investment. He also noted that the UK is interested in further regulatory cooperation, especially after the UK,s past experience with custom designed reactors. (Note: All but one of the UK,s current and elderly reactor fleet are an indigenous design called the AGR for Advanced Gas-Cooled Reactor. Each reactor had a different

design, denying the local industry economies of scale or shared technical experience with international counterparts.)

- 14. (U) Higson emphasized that HMG is trying to minimize regulatory risks by doing a Generic Design Assessment (GDA) for three reactor designs (the Areva EPR, the Westinghouse AP-1000 and the GE ESBWR). He hopes that pre-approval &in accordance with world-wide design8 will reduce risks for the utilities who will ultimately be paying for the construction. Higson suggested that since no public money will be available, the first reactors will likely be funded from the constructing utility,s balance sheet. (Note: This suggests that the major international utilities will be the first movers as they have the strongest balance sheets. The biggest ones in the UK are EDF of France and RWE and E.ON of Germany. End note.)
- 15. (U) Senior Downing St. Policy Advisor Geoffrey Norris went further, saying that EDF was the favorite to build the first new nuclear power station in the UK, likely using Areva technology (EPR, or European Pressurized Reactor). Norris stressed that there was little political risk in the development of new nuclear power, as the Conservatives would support its development. However, he did note that there are public credibility issues linked to the nuclear industry. (Note: The nuclear industry in the UK has suffered severe credibility issues during its lifetime, most recently the publication of new reports raising the cost to the taxpayer of decommissioning the existing fleet of power plants from an estimated 146 to 166 billion USD at current exchange rates.

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End note.) Norris also noted that a clear carbon price will make nuclear even more attractive.

MP Jamie Reed Supports New Nuclear Build, Full Fuel Cycle and USG Cooperation

- 16. (SBU) MP Jamie Reed of Copeland, which houses the UK,s largest nuclear facility, Sellafield Sites, was open about the need for more private sector participation in crafting policies and recognizing opportunities. Reed believes that solid partnerships between business and government will lead to more open information sharing, which will help inform good policy. He also stated that moving quickly now will minimize policy risk; he does not want the industry to become domestically politicized. However, Reed admitted that the UK,s regulatory market is slow-moving, which is why the Secretary of State for BERR John Hutton has been so keen to keep engaged with the nuclear industry players.
- 17. (SBU) Reed stated that taxpayer money will help to subsidize the nuclear industry in one way or another. He pointed to the fact that elements of insurance indemnity, skills training and development, waste disposal and the enlargement of the NII (Nuclear Installations Inspectorate) all required public money. Furthermore, the opening of new national nuclear labs, modeled after the U.S. system, will cost taxpayer money. However, he also noted that clear carbon pricing will help the industry.
- 18. (SBU) Reed is strongly supports the UK having capability for the full fuel cycle, including fuel fabrication and domestic reprocessing. He noted that the French have the most sophisticated skills, as they have continually reprocessed fuel for their domestic industry. He also pointed out that the Russians have a renewed interest in the full fuel cycle as well. He sees reprocessing as a solution to security of supply issues, as well as a way to make the same amount of fuel last longer.
- $\P 9$. (U) Reed and Higson were both broadly supportive of increased international cooperation in the area of

regulation, especially in the licensing of designs. Since the UK will only be evaluating available commercial designs, all will be reviewed by other national regulators. Both men would like to see more cooperation between these national regulators to reduce the time and resources necessary to safely license designs.

Nuclear Decommissioning Authority Welcomes Cooperation

110. (U) Dr. Adrian Simper, Director of Strategy for the NDA (Nuclear Decommissioning Authority) also noted that the UK is not equipped at this time to perform its necessary decommissioning work alone. He recognized the range of skills that U.S. companies can bring to the UK. (Note: All four of the teams that bid on the maintenance and operations (M&O) contract at Sellafield had American companies as partners. End note.) He also pointed out that the NDA has been working with the East Tennessee Environmental Business Association (ETEBA), which grew up around the Oak Ridge National Labs, and would like to expand international contacts like these. $\P 11.$ (U) Simper stressed that the NDA does have sites that are suitable for new nuclear stations, and said the NDA will be conducting more decommissioning work. He pointed out that two maintenance and operations contracts have been let, and that there may be more in the future, since the NDA controls seven sites. However, he did not expect the budget to increase in the next fiscal year from its current 6 billion USD. (Note: U.S. engineering firm URS is involved in both NDA contracts. End note.)

Industry Sees Strong Public Acceptance

112. (U) Keith Parker of the Nuclear Industry Association said that there would be no political issues, even after the next

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general election, which is scheduled for 2010 at the latest. He cited polls that indicated between 85-90% of Conservative back-benchers support new nuclear build. In total, well over 70% of all MP,s support new nuclear build, which represents a doubling of support over the past five years. The polls also show that over 50% of the public is in favor, although he admitted that &it depends on the questions you ask.8 He pointed out that the public shows anxiety over issues of waste management and safety, but is supportive of nuclear power for reasons of climate change and security of supply.

- 13. (U) Parker admitted that the reputation of the nuclear industry had been damaged in the UK because of the financial obligations that had been passed on to taxpayers. However, he felt that by getting the &facilitative measures8 right, such as reforming the planning, licensing and siting requirements, as well as ensuring a robust carbon price, the industry would be able to function without subsidy. He emphasized that &it would help if the low carbon benefits of nuclear were recognized and rewarded.8 Parker also noted that this measure would help to spur other renewable energy research, not just act as a hidden subsidy for the nuclear industry.
- 114. (U) Parker also stressed the interconnectedness of the underlying issues, especially waste management. He felt that it was crucial for the government to have a viable waste management strategy in place in order for the public to support new build. He admitted that waste management was the area most vulnerable to criticism from anti-nuclear groups, especially Greenpeace. However, he noted that many other previously anti-nuclear NGO,s were becoming more positive because of climate change issues. Parker stated that a delay to the waste management solution would create a &domino effect, 8 rippling through the entire system. He pointed out that if the UK,s nuclear renaissance was delayed it would affect the local supply chain.

115. (U) Parker saw multiple areas for US-UK cooperation on civilian nuclear development. He suggested that a formal relationship between the Nuclear Inspections Inspectorate (NII) and the U.S Nuclear Regulatory Commission would help develop NII skills. He noted that although he also expects the utilities to finance the first round of nuclear power stations from their balance sheets, meaning financing the majority with their own cash and limited bank support, he expects financial institutions to assist with the next round, once the risks and rewards have become quantified. However, Parker stressed that the local supply chain will need investment to upgrade production facilities.

U.S. Service Providers Enthusiastic About Opportunity, USG
-----Support

- 116. (SBU) Robert Mawson, the Business Development Director of the Nuclear Business Group at engineering firm CH2M Hill pointed out the strength of the French commercial effort on behalf of Areva. He suggested that it would be helpful for U.S. companies to receive the same support internationally. However, he noted that Areva had not yet lobbied heavily in India or China, which presented vast opportunities for U.S. companies involved in the civilian nuclear sector. He suggested that successful projects in the UK could act as a jumping off point for countries interested in increasing their global client base. Mawson pointed to potential projects in the UAE, Lithuania and Turkey, all of whom have publicly expressed interested in new nuclear power stations.
- 117. (SBU) Mawson agreed that the NII would benefit from closer contacts with the NRC. He also mentioned the possibility of one of the senior-level staff from CH2M Hill being seconded to BERR to help with policy development. (Note: Mark Higson from BERR had mentioned this possibility as well, although he did not specifically name CH2M Hill. End note.) Mawson pointed out that it was important for the NII and BERR to send clear policy signals to the industry. With lead times of four to five years, Mawson was confident that

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the supply chain weaknesses can be properly addressed, given the proper incentives.

- 118. (U) Ian Thomas, Managing Director for Fluor,s UK operations also agreed that it would be helpful if the NRC cooperated more closely with the NII. He noted that the NII was prepared to accept safety cases for the Areva EPR from the French regulators, and that the NRC might help with the safety cases for the GE and Westinghouse designs that are undergoing the GDA. (Note: All three designs that are undergoing the GDA are also being evaluated in various stages by the NRC. End note.)
- 119. (U) Thomas pointed out that Areva already has the majority of its necessary supply chain intact. However, he was confident that U.S. and UK manufacturing could cooperate to create a robust supply chain, but that industry would need assurances of future opportunity. He noted that the passage of the Planning and Energy bills currently being debated in Parliament would provide some of these assurances. Thomas also emphasized that the decision was straight-forward for utilities, who need to meet demand. Since gas and coal are currently cheaper, they need incentives, such as carbon pricing, to assist with financing and cost recovery.

Complaints About the Procurement Process at the EBRD

¶20. (SBU) Mawson from CH2M Hill also took the opportunity to lodge a complaint about the current procurement practices at the European Bank for Reconstruction and Development (EBRD). He noted that American firms are often locked out of bidding because they lack the necessary experience in Europe, even if

they have been performing the necessary work in the U.S. for longer than the required period. Mawson felt that this has unnecessarily disadvantaged US companies that have qualifications in decommissioning and clean up.

Westinghouse Sees Major Opportunities

- 121. (U) David Powell, Westinghouse,s Regional Vice President for the UK, stated that the UK is one of their four top tier countries, or countries with the largest potential for the company, with the others being the US, China and South Africa. (Note: This gives Westinghouse a presence on four continents. End note.) Westinghouse already has commitments to build eight of its new AP-1000 reactors, including four in the US and four in China. Powell noted that Westinghouse was using a &localization approach8 for the Chinese and Korean markets, involving licensing its technology to local companies and allowing them to provide everything except the nuclear island, the area where the nuclear reaction actually takes place. Westinghouse aims to build four plants a year for the foreseeable future, although Powell admitted that Toshiba, Westinghouse,s parent company, would like to build more.
- 122. (SBU) Powell noted that altering the original design as little as possible is the key to a successful roll-out in the UK. Based on previous bad experience with customized designs for each site, he hoped that the NII would make only the most necessary changes this time. He mentioned that the NII has few resources to execute the GDA. However, he also pointed out that European utilities such as RWE and EON had helped to fund the cost of the GDA, with a view that the AP-1000,s approval in the UK would expedite its approval throughout Europe. He speculated that RWE and EON were keen to keep a hand in the nuclear sector in advance of a potential policy change in Germany. He also noted that while utility companies had backed Areva,s reactor, none of them did so financially. Powell does not expect the GE ESBWR (which stands for Economic Simplified Boiling Water Reactor) to be competitive in the first round of reactors built in the UK, as its design is still being finished.
- 123. (SBU) Powell emphasized Westinghouse,s model of &buy where you build,8 which would help the UK to revitalize its civilian nuclear supply chain. He noted that Westinghouse had

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been negotiating possible manufacturing partnerships with Rolls-Royce and BAE systems. Powell said that Westinghouse is interested in sites that belong to either British Energy or the Nuclear Decommissioning Authority, and that the smaller size of the AP-1000 reactor, at only 1100 mW compared with over 1600 mW for the EPR and over 1500 mW for the ESBWR, could fit more easily into smaller existing sites and use existing grid connections. He also mentioned that Westinghouse is in negotiations with Sheffield Forgemasters, a company that could potentially fill a large hole in the supply chain for large-scale forgings, currently only done by Japan Steel. Westinghouse has offered to back the necessary investment into a 15,000 ton press, and is negotiating a &reservation fee8 for future production. However, he characterized this as a &defensive8 investment, as Areva has shown interest in purchasing the company outright.

124. (U) Powell noted that Westinghouse is involved in fuel fabrication in the UK at the NDA,s Springfields site. Their contract expires in 2010, and has already been extended twice. He characterizes the relationship between Westinghouse and the NDA as excellent. Westinghouse is interested in investing to expand the capacity of the plant. He believes that the expanded plant will not only help to feed the expanding UK market, but could also help feed new plants all over Europe. Powell mentioned that Westinghouse currently supplies 30% of EDF,s nuclear fuel needs, partially through its plant in Sweden.

- 125. (U) Paul Spence, Head of Strategy and Business Development for British Energy (BE) noted that the UK has a unique opportunity to take the lead in Europe in new nuclear technology. He estimates that the UK will need 10-15 gigawatts of new nuclear, which would create a robust supply chain ready to service the rest of Europe. Spence believes that building and operating the first fleet of new reactors in the UK, the most competitive, liberalized market in Europe, will give the utilities &bragging rights8 when they seek to expand throughout Europe. (Note: This sentiment was echoed by a number of companies who see the UK as a proving ground for future European business. End Note.)
- $\underline{\P}26.$ (U) Spence stressed that it was unclear what the future of British Energy would be, and that the policy of the government was to let the market determine how much new nuclear power generation would be built. However, he noted that there was enough enthusiasm from the utilities for new nuclear that more than one or two reactors would likely be built. He stated that with a need for more than 10 gigawatts, there would be more than enough scope for at least two reactor designs. Spence said that BE had a total of six sites that are currently viable for new nuclear build. (Note: It has a further two in Scotland, but the devolved Scottish Parliament is firmly against new nuclear generation. End note.)
- 127. (U) In terms of available skills, Spence said that BE was competing with the City of London for technical workers, and that BE,s workforce was ageing. However, looking toward the future, BE is spending more money to train new workers. He did worry that the &craft skills,8 such as electricians and welders, were in increasingly short supply, reflecting demand from the Olympic preparations, military shipyards, and the Middle East and Asia.
- 128. (SBU) Spence outlined what he saw as the three biggest threats to the building of new nuclear reactors in the UK. He saw the top threat as the inability of the NII to complete the GDA. He stated that the NII needs help from the government in terms of more resources and from other national regulators. The next potential threat is the waste management issue. Spence believes that a credible solution needs to be in place for new waste, as well as the legacy waste, before the industry can proceed. The final major issue he identified

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was the planning process. Spence said that the proposed Planning Bill will be of some help, but that the industry still needs more predictability before proceeding with major investments. He said that more focus needs to be on local needs and issues, instead of determining national need for each new station, as was done in the past. Unlike the previous process, he sees making the same case for national need for each new station as a waste of precious time.

129. (SBU) Comment: There is ample opportunity for U.S. companies, both service and technology providers, to make aggressive inroads into the UK market. With both parties supportive of new nuclear, and the issues of climate change and security of supply looming large in the national conscience, the political situation is right. However, it remains to be seen how the consultation on deep geological disposal will proceed. It may be the last hurdle before the plans for new construction proceed. All of the companies asked for more muscular commercial diplomacy in the near future, in an effort to counteract the efforts of the French government in its support for Areva. Currently, American companies have an excellent reputation in the UK, with both Westinghouse and URS/Washington Group holding contracts with the NDA. All companies see the UK as a proving ground for future European work. With more countries considering new nuclear build, and some decommissioning old reactors, it is crucial that U.S. firms get contracts in the UK.

- 130. (SBU) Westinghouse has an especially strong case to make in the UK. With its policy of local purchasing and willingness to use the UK as a source for its expansion into Europe, it can offer more local job creation than vertically integrated Areva. Its possible partnerships with Rolls-Royce and BAE Systems and the flexibility of its reactor design only strengthen its position. However, the recent announcement of a likely sale of British Energy to EDF could lock Westinghouse out of the best sites for development.
- 131. (U) Further cooperation between the NRC and the NII would be welcomed by all players. The NRC has room to play an impartial role, as all three of the designs undergoing the GDA are or have been reviewed by the NRC. Any official help from the USG would help counter the help offered to the NII by the French regulators, who have no experience with Westinghouse or GE designs.

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